

ROZE, N. V.; KAMIN, N. E.; KIDEL, I. A.

Teoreticheskaya Gidromekhanika (Theoretical Hydromechanics), 1941.

Roz, N. V.

USSR

6.5-7

532.5(02) 551.551

[Kochin, Nikolai Evgrafovich; Kibel', I. A. and Roz, N. V. *Teoreticheskaya gidromekhanika*. [Theoretical hydromechanics.] Leningrad, Gosizdat Tekhniko-teoreticheskoi Literatury, 1948. Revised 4th ed. 2 v. (vol. 1, 535 p., 179 figs., refs. p. 527-530, numerous eqs.; vol. 2, 612 p., 156 figs., refs. p. 605-607, numerous eqs.). Review of 1953. DLC—The several parts of this voluminous and highly theoretical treatise (or collection of treatises) cover in the first volume: I. Kinematics of fluids (A. Deformation field, B. Equations of continuity; C. Kinematics of rectilinear and vortex motion); II. Basic equations of hydrodynamics of ideal fluids; III. Hydrostatics; IV. Simple cases of motion in ideal fluids; V. Eddy motion in ideal fluids (Kochin); VI. Simple problems of movement of bodies in ideal fluids; VII. Extension of problems of motion in an ideal fluid; VIII. Wave motion in an ideal fluid (Kochin) including basic equations, simple waves, 3-dimensional waves and long waves. In the second volume: I. Theoretical basis of gas dynamics (Kinut); II. Movement of viscous fluids (Kochin); III. Elementary theory of turbulence (Kibel'); Subject Headings: 1. Theoretical hydrodynamics 2. Turbulence theory 3. Eddy motion 4. Textbooks.—M.R.

P. 5

ROZE, N. V.

Roze, N. V., O stat'e S. P. Repina: Nekotorye svoystva podvetrennykh vozdukhnykh voln. [On S. P. Repina: some properties of leeward atmospheric waves.] *Meteorologiya i Gidrologiya*, Leningrad, No. 4:66, April 1956, eqs. Original article in *Ibid.*, No. 1, 1953. DWB, DLC—The author points out that in the above article the calculations on the movement of air masses on mountain ranges carried out by the method of A. A. DORODINYYA contains errors. REPINA calculated the length of the wave as a function of temperature gradient without considering that the adiabatic temperature gradient depends upon the temperature gradient. Subject Headings: 1. Lee waves 2. Temperature gradient. I. Repina, S. P.—I.L.D.

10.2000

S/044/60/000/012/005/014
C 111/ C 333

AUTHOR:

Roze, N. V.

TITLE:

The second approximation for the plane problem concerning the motion of an ideal gas which moves with small velocities under flow around an obstacle

PERIODICAL:

Referativnyy zhurnal, Matematika, no. 12, 1960, 91, abstract 13914. (Tr. Leningr. tekhnol. in-ta im. Lensovet, 1959, vyp. 50, 23-31)

TEXT:

The author considers the plane problem of the stationary flow around a body of given form by an ideal gas; viscosity and thermal conductivity are neglected. A. A. Dorodnitsyn (tr. ЦИП (TsIP), 1950, 48, vyp. 21) obtained a linearized system of equations in the case of small perturbations of the incident flow and gave its solution, if the velocity of the undisturbed flow is constant and if the temperature changes according to a linear law. The solution is sought in the form of power series in terms of the small parameter $\beta = b/H$, where b is the maximum height of the obstacle and H the height up to which the flow reaches. The author shows that

Card 1/2

-ROZE, N.V.

Straight line method for a problem on the flow of an air current over a mountain range. Dokl.AN BSSR 4 no.10:409-412 '60. (MIRA 13:9)

1. Predstavleno akademikom AN BSSR V.I.Krylovym.
(Winds)

KOCHIN, Nikolay Yevgrafovich; KIBEL', Il'ya Afanas'yevich; ROZE, Nikolay Vladimirovich; RABINOVICH, Ye.Z., redaktor; GAVRILOV, S.S., tekhnicheskiiy redaktor

[Theoretical hydromechanics] Teoreticheskaya gidromekhanika. Izd. 5-oe, ispr. 1 dop. Moskva, Gos.izd-vo tekhniko-teoret.lit-ry. Pt.1. 1955. 560 p. (MIRA 9:2)

(Hydromechanics)

KOCHIN, Nikolay Yevgrafovich; KIBEL', Il'ya Afanas'yevich; ROZE,
~~Nikolay Vladimirovich~~; ROZAL'SKAYA, N.I., red.; MIKHILIN,
E.I., tekhn. red.

[Theoretical hydromechanics] Teoreticheskaya gidromekha-
nika. Pod red. I.A.Kibelia. Moskva, Fizmatgiz. Pt.1. Izd.6.
ispr. i dop. 1963. 583 p. Pt.2. Izd.4., perer. i dop.
1963. 727 p. (MIRA 16:10)

(Fluid mechanics)

L 59586-65
ACCESSION NR: AT5018588

UR/2517/65/079/000/0113/0131

AUTHOR: Khalfin, L. A.; Roze, N. Ye. (Deceased)

TITLE: A statistical approach for approximating integrals

SOURCE: AN SSSR. Matematicheskii institut. Trudy. v. 79, 1965. Raboty po matematicheskoy statistike i teorii veroyatnostey (Papers on mathematical statistics and the theory of probability), 113-131

TOPIC TAGS: statistical analysis, approximation method

ABSTRACT: Statistical techniques are applied to approximate quadrature methods. This device is justified by the fact that the functions sought are known within margins of error, which errors may in turn be treated as random variables. The closeness of approximations is thus estimated according to statistical criteria. For simplicity of exposition, the quadrature is assumed to belong to a class of functions of one parameter. Using the Rao-Cramer inequality, a regular effective quadrature is defined as an estimate minimizing the statistical error, and the conditions for its existence are equivalent to the conditions for existence of an effective estimate. If effective quadratures exist, they can be found uniquely by

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solving the equation of maximum likelihood $\frac{\partial \log L}{\partial \theta} = 0$. "Good" quadratures are those chosen to be both nonbiased and effective. The determination in detail of the quadrature function depends upon the distribution properties of the noise function $n(x)$. Attention is given to the case in which $n(x)$ is a noncorrelated process, and an estimate is made. "In conclusion we express our deep gratitude to Yu. V. Linnik, D. K. Faddeyev, S. G. Mikhlin, A. M. Kagan, V. N. Sudakov, and O. V. Shalayevskiy for their interesting discussion. We are grateful to V. N. Faddeyeva for her attention to this work and for making it possible to carry out the necessary computations." Orig. art. has: 84 formulas.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MA, DP

NO REF SOV: 004

OTHER: 003

Card 2/2

ROZE, O. I.

ROZE, O. I.

Application of sedatives in difficult decannulation. Vopr. pediat.
18:4, 1950. p. 7-8

1. Of the Children's Clinic of Dnepropetrovsk Medical Institute
(Head of Staff—Prof. M. B. Golomb), Dnepropetrovsk.

GLML 19, 5, Nov., 1950

ROZE, O.I.

Effect of exclusion of intestinal motor reactions with atropine on the course of dysentery intoxication in dogs in various age groups. Biul. eksp. biol. i med. 40 no.11:29-32 N '55. (MLRA 9:1)

1. Iz laboratorii vozrastnoy fiziologii i patologii (zav.-prof. I.A. Arshavskiy) Instituta normal'noy i patologicheskoy fiziologii (dir.-deystvitel'nyy chlen AMN SSSR. V.N. Chernigovskiy) AMN SSSR.

(AGING, physiology,

age factor in dysenterial toxin eff. in atropinized dogs.)

(SHIGELLA DYSEN.

dysenteriae, toxin, eff. in atropinized dogs, age factor)

(ANTIGENS AND ANTIBODIES,

Shigella dysenteriae antigen, eff. in atropinized dogs, age factor)

(ATROPINE, effects,

on Shigella dysenteriae toxinaction in dogs, age factor)

ROZE, O.I., dotsent

Clinical peculiarities and diagnosis of various forms of poliomyelitis in children. Ped., akush. i gin. 22 no.3:3-7 '60.

(MIRA 14:4)

1. Kafedra detskikh infektsionnykh bolezney (zav. - dotsent O.I. Roze) Stalinskogo meditsinskogo instituta (direktor - dotsent A.M. Ganichkin [A.M. Hanichkin]).

(POLIOMYELITIS)

ROZE, O.I.; REZNIK, B.Ya.

Characteristics of lesions of the nervous system in epidemic
parotitis. Sov. med. 24 no. 2:32-37 F '60. (MIRA 14:2)

1. Iz kliniki detskikh infektsiy (zav. - dotsent O.I. Roze) Stalinskogo
meditsinskogo instituta (direktor - dotsent A.M. Ganichkin).
(MUMPS) (NERVOUS SYSTEM—DISEASES)

ROZE, S.N.

Convergence in L.M.Kachanov's method. Vest.LGU 16 no.19:170-174
'61. (MIRA 14:10)

(Convergence) (Functionals)

ROZE, T. N.

See SIMONENKO, T. N.

SIMONENKO ROZE, T. N.

PETROV, A.P., doktor tekhn. nauk, prof.; TULUPOV, L.P., kand. tekhn. nauk; KRYUKOV, N.D., kand. tekhn.nauk; GUNDOBIN, V.N., inzh.; VASIL'YEV, G.S., kand. tekhn. nauk; GRISHIN, M.S., kand. tekhn. nauk; MOROZOVA, K.N., inzh.; ROZE, V.A., inzh.; LEVSHIN, G.L., inzh.; BERNGARD, K.A., doktor tekhn. nauk, prof.; BIKCHENTAY, M.A., inzh.; BUYANOV, V.A., inzh.; ILOVAYSKIY, N.D., inzh.; MUKHAMEDOV, G.A., kand. tekhn.nauk; MIROSHNICHENKO, A.P., inzh.; ANDRIANOV, V.P., inzh.; BUTS, V.D., inzh.; KAZIMOV, A.A., inzh.; KIREYEV, O.P., inzh.; DYUFUR, S.L., kand. tekhn. nauk; USTINSKIY, A.A., kand. tekhn. nauk; MIKHAYLOV, S.M., inzh.; NESTEROV, Ye.P., kand. tekhn. nauk, retsenzent; LIVSHITS, V.N., inzh., retsenzent; PREDE, V.Yu., inzh., red.; VOROTNIKOVA, L.F., tekhn. red.

[Control of transportation processes using electronic digital computers] Upravlenie perevozochnym protsessom s primeneniem elektronnykh tsifrovyykh vychislitel'nykh mashin. Pod obshchei red. A.P.Petrova. Moskva, Transzheldorizdat, 1963. 207 p. (MIRA 16:8)

1. Chlen-korrespondent AN SSSR (for Petrov).
(Railroads--Management) (Electronic digital computers)

MAKSIMOVICH, B.M., kand.tekhn.nauk; KOVSHOV, G.N., inzh.; ROZE, V.A., inzh.

Use of electronic calculating machines for long-range estimates of
car flows. Zhel.dor.transp. 42 no.10:32-35 O '60. (MIRA 13:10)
(Railroads--Traffic) (Electronic calculating machines)

PARSHIKOV, Viktor Aleksandrovich; ROZE, Viktor Al'bertovich; KUZNETSOV,
P.V., red.; PONOMAREVA, A.A., tekhn. red.

[Use of high-speed calculating machines in transportation] Pri-
menenie bystrodeistvuiushchikh vychislitel'nykh mashin na tran-
sporte. Moskva, Izd-vo ekon.lit-ry, 1961. 93 p. (MIRA 14:12)
(Electronic calculating machines)
(Transportation--Equipment and supplies)

L 42276-66 T IJP(c)

ACC NR: AP6031477

SOURCE CODE: CZ/0008/66/000/003/0353/0354

AUTHOR: Stepanek, Ivan; Andrasina, Jozef; Rozdobudkova, Viera

ORG: Institute for Sera and Vaccines, Sarisske Michalany (Ustav sera a ockovacich latek Praha pobočka Sarisske Michalany); Scientific Laboratory, Surgical Clinic, P. J. Safarik University, Kosice (Vedecke laboratorium chirurgickej kliniky, Universita P. J. Safarika)

TITLE: Casting form for the preparation of agar films used in infrared spectroscopy

SOURCE: Chemicke listy, no. 3, 1966, 353-354

TOPIC TAGS: IR spectroscopy, laboratory equipment

ABSTRACT: The importance of ²/_{infrared} spectroscopy in the study of biological materials is described. Preparation of agar film with the addition of KBr is discussed. An apparatus made of acrylic plastic is described. The preparation of a film is discussed in detail. Orig. art. has: 1 figure. [JPRS: 36,002]

SUB CODE: 06, 20 / SUBM DATE: 10May65 / SOV REF: 001 / OTH REF: 002

Card 1/1

RUMANIA / Chemical Technology. Chemical Products and Their Applications. Chemical Processing of Natural Gases and Petroleum. Motor and Rocket Fuel Lubricants. H-23

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 9769.

Author : Rozeanu, L.

Inst : ~~Not given.~~

Title : A New Method of Expressing Viscosity of Engine Lubricating Oils.

Orig Pub: Standartizarca, 1956, 8, No 12, 4-9.

Abstract: For characterization of engine lubricating oils on the basis of viscosity, the following parameters are suggested: the minimum temperature of utilization (t_m) at which the oil viscosity reaches 4000 cSt; the characteristic temperature (t_c) and characteristic viscosity (v_c) at which

Card 1/3

ROZEANU, L.

TECHNOLOGY

PERIODICAL: METALURGIA SI CONSTRUCTIA DE MASINI. Vol. 10, no. 10, Oct. 1958

ROZEANU, L. Chroming and hardening as protective measures against wear. p. 879.

Monthly List of East European Accessions (EEAI) LC, Vol, 8, no. 4.
April 1959, Unclass

ROZEANU, L.; Preotescu, O.

Considerations on the wear of friction ensembles while they are running. p. 85.
STUDII SI CERCETARI DE MECANICA APLICATA. Vol. 8, no. 1, Jan/Mar. 1957,
Bucuresti, Rumania)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 12, Dec. 1957.
Uncl.

ROZEANU, L.

Some Aspects on the Utilization of Lubricating Oils from a Group of
Inferior Quality Standard. Studii Si Cercetari De Mechanica Aplicata
(Studies and Research in Applied Mechanics), #1-2:107:Jan-Jun 55

ROZEANU, L.

Some aspects of the utilization of lubricant oils of inferior standards. P. 107 STUDII SI CERCETARI DE MECANICA APLICATA Bucuresti. Vol. 6, no. 1/2, Jan./June, 1956

SOURCE: REAL LC Vol. 5, no. 11, November 1956

ROZLANU, L.

Qualities required of rotor lubricants. p. 13.

Vol. 8, no. 1, Jan 1956
STANDARDIZAREA
Bucuresti, Rumania

Source: East European Accession List. Library of Congress
Vol. 5, No. 8, August 1956

ROZEANU, L.

✓ Determinarea și Utilizarea Parametrilor
de Caracterizare a Viscosității Lubrifianților.
L. Rozeanu and O. Florescu. Stud.
Cerc. Met. Aplic., Jan-Mar, 1984, pp.
63-80. In Romanian. Derivation and
application of characteristic parameters
defining the viscosity of lubricants.

2

CZAPLICKI, Sylwester; DYDUSZYNSKI, Andrzej; ROZEGNAL, Wiktor.

Physiological note III. Pol. tyg. lek. 19 no.47:1810-1812
23 N'64.

1. Z Katedry i Kliniki Chorob Wewnętrznych 2 Centralnego Szpitala
Klinicznego Wojskowej Akademii Medycznej (kierownik: prof. dr.
med. S. Bober).

CZAPLICKI, Sylwester; ROZEGNAL, Wiktor

A rare form of left bundle-branch block. Pol. tyg. lek. 20 no.2:
68-70 11 Ja '65

1. Z Pracowni Ekg Przychodni Specjalistycznej nr. 965 w Warszawie
(Kierownik Pracowni: dr. med. S. Czaplicki) i z Oddziału Choro
Wewnętrznych Szpitala Wojskowego w Deblinie (Ordynator: lek. med.
Z. Stankiewicz).

RYLSKA, T.; ROZEGNALOWA, L.

Studies on the chances of inheriting acquired characteristics as a result of a photoperiodic induction in the short day plant *Perilla ocimoides* L. *Acta agrobotanica* 9 no.2:63-73 '60.

1. Laboratorium Fizjologii Rozwoju Roslin, Instytut Hodowli i Aklimatyzacji Roslin, Warszawa.

Rozehnal, I.; Rokos, D.

Rozehnal, I.; Rokos, D. Laboratory sintering of raw materials used in cement.
p. 58.

Vol. 35, no. 2, Feb. 1957
STAVIVO
TECHNOLOGY
Czechoslovakia

So. East European Accessions, Vol. 6, May 1957
No. 5

SISKA, Lubomir, inž.; ROZENHAJ, V. inž.

Examination of pitching fold seam mining in the Karvina section of the Ostrava-Karvine coalfield. Unit 6 no.1: 3-7 Ja'64.

1. Vedeckovýzkumny uhelný ústav, Ostrava - Radvanice.

EXCERPTA MEDICA Sec 7 Vol. 11/5 Pediatrics May 57

1102. ROZEHNAL V. Dětského Odd. OÚNZ v Litomyšli. *Adiponecrosis subcutanea neonatorum a difer. diagnosa. Adiponecrosis subcutanea

11025

neonatorum and its differential diagnosis. Description of two cases ČSL. PEDIAT. 1955, 10/5 (366-370)
In young infants the following affections may occur: (1) oedema (scleroedema); (2) scleroderma; (3) sclerema; (4) subcutaneous fat necrosis. The similarity between the pathological pictures led to a very complicated terminology. In the first place, adiponecrosis subcutanea neonatorum (subcutaneous fat necrosis, pseudosclerema) should be differentiated from sclerema. The former affection is thoroughly discussed. The prognosis is mostly favourable, the histology is characteristic. This makes the differential diagnosis from sclerema adiposum (Underwood's disease), whose prognosis is fatal (localization in the lower extremities, changes of the chorium and the hypodermis), very possible. Scleroedema neonati (sclerema oedematosum, oedema neonatorum) is differentiated from sclerema by the pit which remains after pressure of a finger in the former disease. The histological structure is similar to that of the skin of a foetus aged 6 to 8 months. Apart from the cellular proliferation of the connective tissue and atrophy of the epidermis, there are no characteristic changes in the subcutaneous fatty tissue. Scleroderma is a very rare disease in newborns. It starts with oedema-like efflorescences, but does not pit on pressure. Then follows the necrotic stage. The prognosis is only favourable in the circumscribed form. The histological picture is peculiar: there is so-called 'fibrinoid necrosis' or only degeneration. Subcutaneous necrosis does not belong to this picture.
(VII, 10, 13)

ROZPRAVA MEDICA. Sec.13 Vol.11/3 Dermatology, etc. Mar 57

818. ROZEHNAL V. Dětského Odd. OÚNZ v Litomyšli. *Adiponecrosis subcutanea neonatorum a difer. diagnosa. Adiponecrosis subcutanea neonatorum and its differential diagnosis. Description of two cases ČSL. PEDIAT. 1955, 10/5 (366-370)

In young infants, the following affections may occur: (1) oedema (scleroedema); (2) sclerodermia; (3) sclerema; (4) subcutaneous fat necrosis. The similarity between the pathological pictures led to a very complicated terminology. In the first place, adiponecrosis subcutanea neonatorum (subcutaneous fat necrosis, pseudo-scleroma) should be differentiated from sclerema. The former affection is thoroughly discussed. The prognosis is mostly favourable, the histology is characteristic. This makes the differential diagnosis from sclerema adiposum (Underwood's disease), whose prognosis is fatal (localization in the lower extremities, changes of the chorium and the hypodermis), very possible. Scleroedema neonati (sclerema oedematosum, oedema neonatorum) is differentiated from sclerema by the pit which remains after pressure of a finger in the former disease. The histological structure is similar to that of the skin of a foetus aged 6 to 8 months. Apart from the cellular proliferation of the connective tissue and atrophy of the epidermis, there are no characteristic changes in the subcutaneous fatty tissue. Sclerodermia is a very rare disease in newborns. Its starts with oedema-like efflorescences, but does not pit on pressure with the finger. Then follows the necrotic stage. The prognosis is only favourable in the circumscribed form. The histological picture is peculiar: there is so-called 'fibrinoid necrosis' or only degeneration. Subcutaneous necrosis does not belong to this picture.

(VII, 10, 13)

ROZEHNAL, V., MUDr.; VODICKA, F., MUDr.

Incontinentia pigmenti in 4 girls of same family. Cesk. pediat.
12 no.5-6:549-554 May-June 57.

1. Detske oddeleni OUNZ Litomyšl, primar MUDr. V. Rozehnal
Kozni oddeleni OUNZ Litomyšl, primar MUDr. F. Vodicka.
(SKIN DISEASES, in inf. & child
incontinentia pigmenti in sisters (Cz))

SISKA, Lubomir, inz.; JANAS, Jindrich, inz.; ROZEHNAL, Vladimir, inz.

Gas emission and convergence rate in the 34th seam undermining
of the Gottwald mine in the Ostrava-Karvina coalfield. Uhli
6 no.5:158-161 My '64

1. Institute of Coal Research, Ostrava - Radvanice.

L 45074-65 EWT(m)/EPF(c)/EWA(d)/EWP(v)/T/EWP(k)/EWP(h)/EWP(l) Pr 1/Pr 14
 ACCESSION NR: AP5014329 DJ CZ/0057/64/000/008/0392/0393 27
 AUTHOR: Rozehnal, Vratislav; Vedra, Lubomir B
 TITLE: Portable drill for opening in gear boxes
 SOURCE: Hutnik, no. 8, 1964, 392-393
 TOPIC TAGS: drilling machine, antifriction bearing //
 Abstract: The openings are required for replacements of bearings. The old method used manual welding and machining; this was not accurate enough, and the gear boxes required frequent repairs. The electric drill designed by the authors is described. Instructions for operating the machine are given. Technical data of the machine are shown. Its use in other plants in Czechoslovakia is recommended. The machine can be adapted for various sizes of new bearings. Orig. art. has 2 figures.
 ASSOCIATION: NHKG, Ostrava
 SUBMITTED: 00 ENCL: 00 SUB CODE: IE, FP
 NO REF SOV: 000 OTHER: 000 JPRS
 Card 1/1 ce

ROZEHNAL, Vaclav, inz.

On suitability of combining connecting circuits in teleprint networks. Cs spoje 10 no.1:8-11 F '65.

1. Central Administration of Telecommunications, Prague.

ROZEI, I. ; PATRASCIOIU, R.

Apparatus for the determination of the characteristics of sediments in drinking water and residual water. p. 5.

(TEHNICA NOUA. ROMANIA. Vol. 3, no. 58, July 1956.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

KOCHNOWSKI, Gustaw; ROZEK, Gerard

Fatal gastric cancer during the treatment of pulmonary tuberculosis with antibacterial drugs and cortisone. Pol. tyg. lek. 19 no. 25:960-961 15 Feb '64.

1. Ze Szpitala Przeciwgruzliczego w Pilchowicach kolo Gliwic;
dyrektor: Lek. med. Gustaw Kochnowski.

KOCHNOWSKI, Gustaw; ROZEK, Gerard

Permanent cure in a case of fresh tuberculous empyema treated with antibacterial drugs and hyaluronidase. Gruzlica 29 no.12:1053-1055 D '61.

1. Ze Szpitala Przeciwgruzliczego w Pilchowicach kolo Gliwic Dyrektor:
lek. med. G. Kochnowski.

(ANTITUBERCULAR AGENTS ther) (HYALURONIDASE ther)

ROZEK, J.

"Three-phase shunt wound rotor-fed commutator motors."

p. 17 (Czechoslovak Heavy Industry) No. 8, 1956
Prague, Czechoslovakia

SC: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, n o. 4
April 1958

HOBLEK, Tadeusz; STREK, Fryderyk; ROZEK, Ryszard

Analysis of the relation of the degree of mixing and the amount of power consumed for mixing liquids. Chemia stosow 7 no.3: 273-288 '63.

1. Zaklad Inzynierii Chemicznej i Konstrukcji Aparatury, Polska Akademia Nauk, Gliwice.

FLOPKIEWICZ, Henryk; MOZES, Stanisława; GONIA-SALC, Roman

Diagnostic value of the d-xylose test in malabsorption syndromes. Pol. tyg. lek. 20 no.39:1446-1449 27 S '65.

1. Z I Kliniki Chorob Wewnętrznych AM w Lublinie (Kierownik: prof. dr. Mieczysław Kedra) i z Kliniki Chorob Zakaźnych AM w Lublinie (Kierownik: dr. med. Kazimierz Kucharski).

RozeK, S.

GOLDSCHMIED, Aleksander; KANSKI, Marek; LYSANOWICZ, Zofia; GROSZEK, Janina;
ROZEK, Stanislaw

Investigations on the glyceimic thrust index in peptic ulcer. Ann.
Univ. Lublin; sec.D 7 no.11-21:331-340 1952.

1. Z I Kliniki Chorob Wewnetrznych Akademii Medycznej w Lublinie.
Kierownik: prof. dr Aleksander Goldschmied.

(BLOOD SUGAR, in various diseases,
peptic ulcer, difference of sugar during insulin
hypoglycemia & after inject. of glucose)

(PEPTIC ULCER, blood in,
sugar, difference of sugar during insulin hypoglycemia
& after inject. of glucose)

DMOWSKI, Gustaw; POLESZAK, Jozef; ROZEK, Stanislaw

A case of primary cryoglobulinemia. Polski tygod. lek. 16 no.31:
1199-1203 31 J1 '61.

1. Z I Kliniki Chorob Wewnetrznych A.M. w Lublinie, kierownik: prof.
dr med. Mieczyslaw Kedra.

(SERUM GLOBULIN)

FLORKIEWICZ, Henryk; RUCZEK, Stanisława

Value of the Staub-Traugott test in the functional evaluation of islet cells. Pol. tygod. lek. 19 no.17:635-638 20 Ap '64.

I. Z I Kliniki Chorob Wewnętrznych Akademii Medycznej w Lublinie (kierownik: prof. dr. med. Mieczysław Kedra).

KEDRA, Mieczyslaw; CZERNICKA, Halina; ROZEK, Stanislaw

Behavior of blood GOT, GPT and aldolase in chronic circulatory insufficiency. Pol. tyg. lek. 17 no.15:541-547 9 Ap '62.

1. Z I Kliniki Chorob Wewnętrznych AM w Lublinie; kierownik: prof. dr med. M. Kedra.

(TRANSAMINASES blood) (ALDOLASE blood)
(HEART FAILURE CONGESTIVE blood)

KUDRZYCKA-BIELOSZABSKA, Florentyna; ROZEK, Tadeusz

Isolation and biological determination of active constituents of
rhiz. filicis. I. Ann.Univ.Lublin; sec. D 14:291-302 '59.

1. Z Katedry Farmakognozji Wydziału Farmaceutycznego Akademii
Medycznej w Lublinie Kierownik: doc. dr Florentyna Bielewska.
(ASPIDIUM chem)

L 6874-65 EWG(j)/EWT(i)/EPF(c)/K/EPR/EWP(q)/EWP(b) Pr-4/Ps-4 ASD(m)-3
 ACCESSION NR: AR4041674 JD/WW/WH S/0081/64/000/007/P013/P013

SOURCE: Ref. zh. Khimiya, Abs. 7P83

AUTHOR: Chaly*kh, Ye. F.; Rozeman, I. M.

TITLE: Effect of atmospheric oxygen on the process of firing of fine-grained graphite materials

CITED SOURCE: Tr. Mosk. khim.-tekhnol. in-ta im. D. I. Mendeleeva, vy*p. 42, 1963, 29-34

TOPIC TAGS: graphite, graphite material, firing, atmospheric oxygen

TRANSLATION: There are given comparative data on physico-mechanical properties of graphite materials obtained on the basis of mixtures of coal tar pitch, petroleum coke and graphite during heating in N_2 medium at $1,000^\circ$ at a rate of $6.5^\circ/\text{min}$. There is studied the effect on properties of these materials of preliminary heating of mixtures at $200 - 250^\circ$ in current of air, CH_4 , and N_2 , depending on temperature of gas output and time of treatment. Treatments in current of CH_4 and N_2 , gave similar results, whereas, due to oxygen polymerization and condensation of bonding

Card 1/2

L 6874-65

ACCESSION NR: AR4041674

C

components, treatment in air at 250° for 2 hours led to increase of coke yield by 10 - 15% (in conversion to pitch) and increase of density and mechanical strength of articles after firing.

SUB CODE: MT, GC

ENCL: 00

Card 2/2

ROZEMAN, Ye. A., Doc Tech Sci -- (diss) "Principles of the construction of rapid-action tracing systems." Moscow, 1959. 24 pp with charts; (Inst of Automatics and Telemechanics of the Academy of Sciences USSR); price not given; (KL, 17-60, 150)

L 45252-66 T JK
ACC NR: A6033589

SOURCE CODE: RU/0023/65/010/004/0343/0347

AUTHOR: Lupascu, Gh. E.--Lupashku, G. Ye. (Doctor); Rozemberg, L.-(Doctor);
Banica, A.--Banike, A. (Doctor); Dunareanu, H.--Duneryanu, Kh. (Doctor);
Radulescu, M.--Redulesku, M. (Doctor)

24
B

ORG: "Prof. Dr. Victor Babes" Hospital for Contagious Diseases, Bucharest (Spitalul de boli contagioase "Prof. Dr. Victor Babes")

TITLE: Observations on current aspects of infections with pseudomonas aeruginosa
[This paper was presented at the Symposium of Pediatrics at Region "Tudo Vladimirescu", Bucharest.]

SOURCE: Microbiologia, parazitologia si epidemiologia, v. 10, no. 4, 1965, 343-347

TOPIC TAGS: bacteria, antibiotic, infective disease, bacteriology

ABSTRACT: The authors summarize the main aspects of B. pyocyanic infections occurring under pathologic suprainfection conditions, with a view to their classification. Special emphasis is placed on the effect of the introduction of antibiotics on the equilibrium of microbial flora, and on the need for a sustained control of organism reactivity. [Based on authors' Eng. abst.] [JPRS: 32,913]

SUB CODE: 06 / SUBM DATE: 16Jun65 / OTH REF: 009

Card 1/1 *th*

UDC: 616-022.711.32-053.3

LUPASCU, Gh.E., dr.; ROZEMBERG, L., dr.; BANICA, A., dr.; DUNAREANU, H., dr.;
RADULESCU, M., dr.

Considerations on several current aspects of Pseudomonas aeruginosa
infections. Microbiologia (Bucur.) 10 no.4:343-347 J1-Ag '65.

1. Lucrare efectuata in Spitalul de boli contagioase "Prof. dr.
Victor Babes", Bucuresti.

ROZEMBERG, MIHAI

Distr: 4E2c(m)

19 27
/ Anisotropic permanent magnets of Ba ferrite. Vasile
Ivascu, Mihai Rozemberg, and Lucia Carlan. *Electro-
technica* (Bucharest) 8, No. 6, 210-14(1960).—Theoretical
considerations indicate that the max. energy of anisotropic
Ba ferrite magnets can be 4 times as great as that of iso-
tropic magnets for the case of an ideal anisotropic structure.
The parameters were studied that pertain to the processes of
crystal orientation under pressure in a magnetic field, and
to the final thermal treatment of the anisotropic material.
Optimum conditions were established for these processes.
The compn. of the material was maintained const. as
BaO.5.9Fe₂O₃.0.0352Bi₂O₃. The (a) water:ferrite ratio,
(b) pressure, (c) intensity of the magnetic field, and (d)
parameters of the final thermal treatment were studied.
The magnetic energy of the anisotropic product $(BH)_{max}$
is in the range $2.0-2.5 \times 10^4$ gauss-oe., four times as great
as that of the current isotropic magnet. R. A. Sanford—

5
MJC(JD)
1

9.4360 (22.03.1960 - 22.04.1960)
9.7140
15.2210 1273 1145, 1136

86717

R/004/60/000/007/002/002
A231/A026

AUTHORS: Ivaşcu, Vasile, Engineer, Chief of Laboratory; Rozemberg, Mihai,
Candidate of Sciences, University Lecturer; Tanach, Valentin,
Engineer, Researcher; and, Cîrlan, Lucia, Engineer, Chief Research-
er; (Bucharest)

TITLE: Magnetic Ferrite Cores for Application in Radioengineering, Auto-
mation and Telecommunications. (Ferrites With Rectangular Hystere-
sis Loops)

PERIODICAL: Electrotehnica, 1960, No. 7, pp. 247-254

TEXT: The authors present the results of some studies conducted at the
ICET (Electric Engineering Research Institute) with regard to the production of
magnetic oxide materials (ferrites) with a rectangular hysteresis loop, to be
used in electronic computers, automatic telephone exchanges, etc. The ICET in-
vestigations led to the development of several types of memorizing and switch
cores with the corresponding characteristics presented in Table 1. Reference
is made to J. Goodenough (Ref. 3) who described the properties of ferrites with
a rectangular hysteresis loop. For their investigations, the authors prepared

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86717

R/004/60/000/007/002/002
A231/A026

Magnetic Ferrite Cores for Application in Radioengineering, Automation and Telecommunications. (Ferrites With Rectangular Hysteresis Loops)

the following three compositions: "HA", with ratio of $\frac{\text{MnO}}{\text{MgO}} = \frac{1}{2}$; and "H", with a ratio of $\frac{\text{MnO}}{\text{MgO}} = \frac{8}{3}$; and "V", a composition similar to in which 50 % of the

MgO have been replaced by ZnO. The granulation of the raw material was of the 1μ order. Toroidal-shape pieces of different sizes have been prepared (Table 2). Measurements of size, density, hysteresis loop, initial permeability, reversal time, and variations of the hysteresis loop with the temperature have been accomplished. The results of the measurements are compiled in Figures 6, 7, 8, and 9, and Tables 3 and 4. The "HA" composition proved to be useful for memorizing circuits. The "H" composition can be used in switching circuits and telecommunications due to a low R_s coefficient, although the "V" composition is more advantageous for these purposes because of the low coercive force (≤ 0.2 Oe). Different factors of heat treatment, i.e., temperature, cooling time, etc., have a certain influence on the properties of these compositions. An increase of the temperature and of the duration of the heat treatment, generally increases

Card 2/3

TSAL'MAN, L.B., inzh.; ROZEMAN, Ya.Sh., teknik

Burr-free oxygen cutting of steel with natural gas. 'Svar. proizv.
no.2:31-33 F '61. (MIRA 14:1)

1. Dnepropetrovskiy filial Gosudarstvennogo proyektного instituta
"Proyektstal' konstruktsiya."
(Gas welding and cutting)

GEORGESCU, N., dr.; ROZEMBERG, A., dr.; CHERPEL, L., dr.; DINESCU, Gh., dr.;

Clinical and radiological considerations on 4 cases of diverticulosis of the large intestine. Med. intern. 13 no.12:1711-1715 D '61.

1. Spitalul nr. 12 A.
(DIVERTICULOSIS diagnosis)

ROZENBERG, O.O.; ANDREYEV, V.P.; ANTOSHIN, I.I.

Electric slag welding of turbine penstock at the Bratsk
Hydroelectric Power Station. Avtom.svar. 13 no.7:91-92
Jl '60. (MIRA 13:7)
(Bratsk Hydroelectric Power Station--Hydraulic turbines)
(Electric welding)

ROZENTAL', I.S., professor.

What does the conditional reflex method gain for the study of higher nervous activity and is it possible to control such activity? Nauk.zap.Kiev.un.8 no.7:159-169 '50 [i.e.'49].
(CONDITIONED RESPONSE) (NERVOUS SYSTEM) (MLRA 9:10)

ROZEN, A.; KHORKHORINA, L.

Letter to the editor. Zhur. neorg. khim. 3 no.2:549 F '58.
(Extraction (Chemistry)) (MIRA 11:4)

ROZEN, A.

Walking crane. Nauka i zhizn' 20 no.6:29 Je '53.

(MLBA 6:6)

(Cranes, derricks, etc.)

John Katarakis. Katarakis [K] battery; storage]. Moscow, Vostochno-vo, [1954] 112 p.

SO: Monthly List of Russian Accessions, Vol 7, No 3, June 1954.

ROZEN, A.

Under the protection of smoke. Nauka i zhizn' 22 no.1:35
Ja'55. (MIRA 8:2)

(Liquid fuels)(Tank vessels)

85960

53700

2209, 1273, 1153

S/126/60/010/005/002/030
E032/E414

AUTHORS: Stepanova, G.I. and Rozen, A.A.

TITLE: Investigation of the Thermal Dissociation of
Molybdenum Hexacarbonyl

PERIODICAL: Fizika metallov i metallovedeniye, 1960, Vol.10, No.5,
pp.650-654

TEXT: The thermal dissociation of molybdenum hexacarbonyl, which is accompanied by the separation of molybdenum with a small carbon impurity, is often used in coating a number of materials with molybdenum, and also to obtain pure molybdenum. A study of the thermal dissociation of molybdenum hexacarbonyl may, therefore, be of great practical importance. The principal characteristics of the thermal dissociation process is its rate and the concentration of carbon in the dissociated molybdenum. Both these quantities depend on the rate at which the reaction products are pumped off from the apparatus in which the dissociation takes place. The aim of the present paper is to determine this dependence. The experimental work was carried out using the vacuum system described in an earlier paper by the second of the present authors

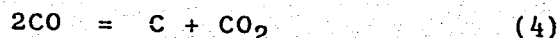
Card 1/4

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85960

S/126/60/010/005/002/030
E032/E414Investigation of the Thermal Dissociation of Molybdenum
Hexacarbonyl

(Ref.1). The carbonyl was introduced into the apparatus in a stream of hydrogen and the dissociation took place on the surface of a steel tube heated to 875°K. The pressure of hydrogen in the apparatus was 0.1 mm Hg. In the first part of the paper a calculation is given of the various quantities characterizing the thermal dissociation process. This calculation may be used in other processes analogous to the above. Effects such as the presence of a pressure gradient near the dissociation surface, and the temperature discontinuity between the wall of the steel tube and the gas, are taken into account. This temperature discontinuity appears to be important to the explanation of the amount of carbon in the dissociated molybdenum and its dependence on the pumping speed. The carbon impurity is due to the secondary reaction

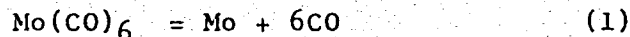


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85960

S/126/60/010/005/002/030
E032/E414Investigation of the Thermal Dissociation of Molybdenum
Hexacarbonyl

which accompanies the main reaction



The rate of dissociation of the hexacarbonyl q_1 is equal to the rate at which it is fed into the apparatus. For given hydrogen pressure, the rate at which the carbonyl is introduced will increase with the rate at which the apparatus is pumped, and this in turn will lead to an increase in the dissociation rate. The table on p.652 gives the dependence of the pumping speed S (litres/sec) on the rate of flow v of hexacarbonyl into the apparatus (mole/hour) and the rate of dissociation q_1 . The third column gives the calculated concentration of carbon in molybdenum at 875°K, and the fifth column gives the experimental values for this quantity. The sixth column gives the calculated carbon concentration, taking into account the temperature discontinuity. The last two columns give the experimental and

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S/126/60/010/005/002/030
E032/E414

Investigation of the Thermal Dissociation of Molybdenum
Hexacarbonyl

calculated gas temperatures in the neighbourhood of the wall.
On the whole, the agreement between theory and experiment is
reasonable. There are 1 figure, 1 table and 3 Soviet references. ✓

SUBMITTED: July 2, 1960

Card 4/4

18.8200 also 1413

87518
S/073/60/026/002/001/015
B023/B067

AUTHOR: Rozen, A. A.

TITLE: Study of the Thermal Dissociation of Molybdenum Carbonyl.
2. Effect of Temperature on the Carbon Content in Molybdenum
and Its Microhardness

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, 1960, Vol. 26, No. 2,
pp. 151-157

TEXT: The author studied the effect of the chemical reactions proceeding simultaneously with the decomposition of molybdenum carbonyl on the microhardness of the forming metal and on its carbon content. The experimental methods were described in an earlier paper of the author (Ref. 1). The author obtained experimental and calculated curves from which the carbon and molybdenum contents may be determined at different temperatures and pressures in the decomposition of carbonyl. He found that the experimental values in the temperature range of 400-950°C are somewhat higher, and below this temperature, smaller than the calculated values. The carbon content in molybdenum decreases with increasing temperature (Fig. 3). At

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87518

Study of the Thermal Dissociation of Molybdenum Carbonyl. 2. Effect of Temperature on the Carbon Content in Molybdenum and Its Microhardness. S/073/60/026/002/001/015 B023/B067

850-950°C, e.g., the metal contains 10^{-2} - 10^{-3} % carbon, whereas its carbon content rises to 3.8 - 4% at 250-300°. At elevated temperatures, hydrogen does not influence the formation of carbon. At low temperatures, the amount of carbon formed as a result of the reaction $2CO \rightleftharpoons C + CO_2$ is largely reduced. Thus, the metal obtained at low temperatures contains a relatively small amount of carbon impurities. Furthermore, the author states that the microhardness of molybdenum depends on the temperature of dissociation and on the carbon content in the metal. At high temperatures and low carbon contents, microhardness is close to the hardness of molybdenum produced by the ordinary method of powder metallurgy. The carbon content in the metal is directly proportional to the rate of dissociation and inversely proportional to temperature. Microhardness changes analogously. Previous studies have shown that its microhardness is somewhat reduced by heat treatment in a vacuum, or at a relatively low hydrogen pressure ($P_{H_2} = 3 \cdot 10^{-1}$ mm Hg) and at temperatures higher than those used for the precipitation of molybdenum. The author thanks K. D. Sinel'nikov and V. Ye. Ivanov for their interest shown in his paper, and G. I. Postogvard

Cont. 2/3

L 23586-66 EWT(m)/EWP(e)/ETC(f)/EWG(m) JD/JG/AT/WH

ACC NR: AP6012773

SOURCE CODE: UR/0226/66/000/004/0061/0064

AUTHOR: Matyushenko, N. N.; Rozen, A. A.; Pugachev, N. S. 75

ORG: Kharkov Physicotechnical Institute, AN UkrSSR (Khar'kovskiy
fiziko-tehnicheskii institut AN USSR) B

TITLE: Triangulation of the system C-Si-Be

SOURCE: Poroshkovaya metallurgiya, no. 4, 1966, 61-64 27 27 27

TOPIC TAGS: silicon carbide, ternary system, carborundum, beryllium

ABSTRACT: The ternary system C-Si-Be is triangulated by studying the interaction between carborundum and beryllium. The interaction product is a mixture of silicon and beryllium carbide (CBe₂). The polythermal sections Si-CBe₂ and CBe₂-SiC are quasibinary systems. There is no liquid eutectic in system Si-CBe₂ close to 1400C. Orig. art. has: 3 figures and 2 tables. [Based on author's abstract] [AM]

SUB CODE: 07, 11/ SUBM DATE: 22Jun65/ ORIG REF: 007/ OTH REF: 002/-

Card 1/1 28

L 26669-66 EWT() JD/JG

ACC NR: AP6010407

SOURCE CODE: UR/0126/66/021/003/0403/0408

AUTHORS: Matyushenko, N. I.; Rozen, A. A.; Sagalovich, V. V.

ORG: none

TITLE: Morphology and texture of molybdenum and tungsten carbonyl deposits

SOURCE: Fizika metallov i metallovedeniye, v. 21, no. 3, 1966, 403-408

TOPIC TAGS: molybdenum, tungsten, metal deposition, x ray diffraction, temperature dependence, thermal decomposition

ABSTRACT: The morphology and textures of deposits obtained in thermal decomposition of molybdenum and tungsten carbonyls were studied over the temperature range from 150--1050C. The carbonyl specimens were prepared after the method of A. A. Rozen (Ukr. khim. zhurnal, 1959, 25, 735). X-ray diffraction patterns and particle size of the deposits, obtained at different temperatures of the deposition surface, were determined (see Fig. 1). It was found that there exist two morphological transition temperatures, at 250 and 750C and 350 and 800C for Mo and W respectively. The first transition temperature is related to the rupture of carbonyl molecule and the second to the condensation from supercooled liquid or, at higher temperature (i.e., $T > \theta_2$), to the formation of crystal nuclei. The authors thank L. S. Palatnik for valuable advice and V. G. Yegorychev for assisting in the experimental work.

Card 1/2

UDC: 669.27/28

L 26669-66

ACC NR: AP6010407

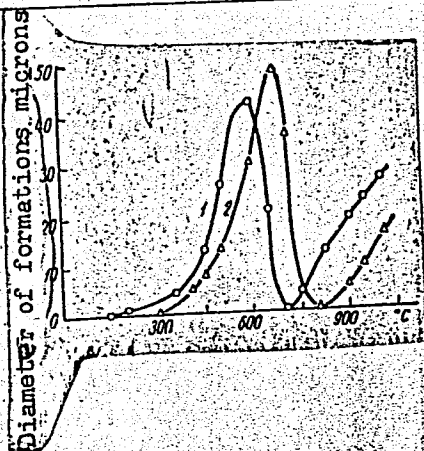


Fig. 1. Dependence of mean sizes of drop-like and crystal formations on the temperature of the deposition surface. 1 - molybdenum, 2 - tungsten.

Orig. art. has: 5 figures.

SUB CODE: 11,20/ SUBM DATE: 08Feb65/ ORIG REF: 007

Card 2/2 BLG

ROZEN, A.I.

Modernization of a turret lathe. Mashinostroitel' no.8:12
Ag '63. (MIRA 16:10)

ROZEN, A.M.; NIKOLOTOVA, Z.I.; PETROV, K.A.; SKOTNIKOV, A.S.; TETSRIN, E.G.

Extraction capacity of organic compounds depending on their structure and electronegativity of substituting groups. Part 2: Effect of electronegative groups. Radiokhimiya 7 no.5:517-533 '65.

(MIRA 18:10)

1ST AND 2ND ORDERS															3RD AND 4TH ORDERS														
CA															PROCESS AND PROPERTIES INDEX														
															Concerning the "thermodynamic theory of equation of state." A. M. Rozen. <i>J. Phys. Chem.</i> (U. S. S. R.) 15, 1988-93(1941).—The "theory of equation of state" that has been presented in a series of nearly 40 papers by Jacyna (cf. C. A. 32, 4031*) is reviewed critically. Jacyna's theory is based upon incorrect foundations. A number of deductions and derivations are either incorrect or do not correspond to exptl. facts. The agreement of the final equation with some exptl. data is due to the presence of 15 empirical consts. in this equation, "making it possible to make the equation fit any exptl. data." G. M. Krasnoshch														
ASM-31A METALLURGICAL LITERATURE CLASSIFICATION															F-27														
GROUPS															REVISIONS														
1ST ORDER															2ND ORDER														
3RD ORDER															4TH ORDER														

Absorption from solutions at high pressure. A. M. Rozen (*Compt. rend. Acad. Sci. U.R.S.S.*, 1943, 41, 296-297).—The adsorption of AcOH by activated C under pressure has been investigated. Three adsorption isotherms (at 1, 1000, and 2000 atm.; 25°) were obtained. The adsorption increases linearly with pressure up to 2000 atm., but above this the relationship is not simple. None of the isotherms conforms to the Freundlich equation.
A. J. M.

A. J. M.

1ST AND 2ND COLUMNS		PROCESSES AND PROPERTIES INDEX	3RD AND 4TH COLUMNS
2A			2
Adsorption from solutions at high pressures. A. M. Rozen. <i>J. Phys. Chem.</i> (U.S.S.R.) 18, 383-5(1944).— Exptl. data on the adsorption of HOAc on active charcoal at 25° and at pressures of 1, 1000, and 2000 atm. are shown in 4 sets of graphs. The form of the adsorption curves is the same at all three pressures, and the relations of pressure to percentage increase in adsorption are strictly linear. P. H. Rathmann			
ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION			
1ST AND 2ND COLUMNS		3RD AND 4TH COLUMNS	5TH AND 6TH COLUMNS
1ST AND 2ND COLUMNS		3RD AND 4TH COLUMNS	5TH AND 6TH COLUMNS

311

2

An approximate equation of state for gases under high pressures. A. M. Rozen. *J. Phys. Chem. (U.S.S.R.)* 20, 333-8 (1946). --The equation $PV = A + BP + CT$, where P is pressure, T abs. temp., and A , B , and C are consts., is valid for N_2 , H_2 , CO , He , $N_2 + 3H_2$, and air at P above $3 P_c$ and T above $3 T_c$; P_c and T_c are the crit. pressure and temp. The relative error is below 2.2%.
J. J. Bickerman

ASAC-311 METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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PROCESSING AND PROPERTY INDEX

ANOMALOUS PHASE TRANSITIONS. I. K. Krichevskii and A. M. Rozen (Inst. of Nitrogen Industry, Moscow). *J. Phys. Chem. (U.S.S.R.)* 20, 925-40 (1946) (in Russian).

—Mayer's theory (C.A. 34, 314) of anomalous phase transitions of the first order contradicts thermodynamics. If the theory is altered to reconcile it with thermodynamics, no difference remains between the anomalous and normal phase transitions. J. J. Bikerman

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

COMMON ELEMENTS

COMMON VARIANTS INDEX

OPEN

WATERGAS INDEX

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ROZEN, A.

Drawing up and utilizing the national income balance in planning.
Problems econ 18 no.4:36-48 Ap '65.

ROSEN, A.

PA 26T59

USSR/Physics
Thermodynamics
Quantum Theory

Jan 1947

"On Anomalous Phase Transitions (Behavior of Substances Near Their Critical Point),"
I. Krichevskiy, A. Rosen, Institute of Nitrogen Industry, Moscow, 161 pp

"Acta Physicochimica URSS" Vol XXII, No 1

A critical analysis is given of Mayer's revision of the Van der Waal classical theory of critical phenomena. The existing difficulties are shown to be certain misconceptions in thermodynamics.

PA 26T59

BS

CA

2

Oxygen as indicator in heterogeneous catalysis. S. M. Karpacheva and A. M. Rogoz. *Doklady Akad. Nauk S.S.S.R.* 68, 1057-60 (1949). — (1) The fate of O^{18} incorporated into the catalyst by the exchange $H_2O^{18} + MO^{18} \rightleftharpoons H_2O^{16} + MO^{16}$ was investigated in 3 reactions, (a) surface combustion of H_2 on $grog$, Fe_2O_3 , quartz, or dunite, (b) oxidation of CO on MnO_2 , (c) dehydration of $HCOH$ on Cr_2O_3 , $10 + Al_2O_3$ (90%) or on kaolin, in all 3 cases under flow conditions, by d , deins. of the H_2O directly produced in reactions a and c, or that obtained by reduction with H_2 of the CO_2 produced in reaction b. Whereas incorporation of O^{18} by the above exchange is easy, and particularly fast (equil. reached in 1 sec.) with MnO_2 , the exchange $H_2O^{18} + MO^{18} \rightleftharpoons H_2O^{16} + MO^{16}$ at less than 800° was mostly unsuccessful, except on MnO_2 . The amts. of O^{18} incorporated in the catalysts were, (a) in quartz, δ , in $grog$, Fe_2O_3 , and dunite, 14-17 γ/g , (b) 157-250 γ/g . (no data for c). In all 3 reactions, significant amts. of O^{18} were found in the products. That this H_2O^{18} is formed primarily, not by the secondary exchange $MO^{18} + H_2O^{16} \rightleftharpoons MO^{16} + H_2O^{18}$, was demonstrated by passing H_2O over the catalyst, which resulted only in very slight enrichment in O^{18} . It follows that reaction a (at $400-800^\circ$, time of contact 0.6 sec.) involves direct participation of the catalyst which undergoes alternating reduction by H_2 and reoxidation by O_2 . The same applies to reaction b (at $200-250^\circ$, time of contact 1.5-4.0 sec.); exchange between MnO_2 and CO_2 takes place at as low as $70-80^\circ$, with air only at about 200° . For reaction c ($350-470^\circ$, time of contact 0.55-8 sec.), direct participation of the catalyst was demonstrated by

comparison of the d. of H_2O produced in parallel expts. with O^{18} -enriched and nonenriched catalysts. (2) All 3 catalysts were found also to promote the exchange d $H_2O^{18} + \frac{1}{2} O_2^{18} \rightleftharpoons H_2O^{16} + \frac{1}{2} O_2^{16}$, in the same order of activities as in reactions a, b, and c. This exchange can be catalyzed in 2 ways, either by a "hydrate" mechanism wherein the metal oxide combines with H_2O^{18} and the resulting hydroxide exchanges O^{18} with adsorbed O_2^{18} , or by an "oxygen" mechanism involving formation and decomposition of higher oxides. Exchange by a purely adsorptive mechanism was observed with a CuO catalyst, inactivated for the $H_2O^{18} + MO^{18}$ exchange by repeated treatment with H_2O . This passivated catalyst still remained active in the exchange d ; it also proved to have a high activated-adsorption capacity for O_2 . This type of purely adsorptive exchange catalysis, involving no chem. participation of the catalyst, is, however, not general. In particular, it could not be realized with MnO_2 which always is itself involved in a chem. reaction. MnO_2 is also characterized by a very low activation energy for d , 7 kcal./mole as against 23 for CuO . N. Thon

(BA-AI Ja 53:84)

ROZEN, A. M.

158187

USSR/Physics - Thermodynamics
Compression

Jan 50

"Adiabatic Process of Compression of Real Gases,"
A. M. Rozen, Inst of Phys Problems, Acad Sci
USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LXX, No 3

Rozen previously solved problems of thermodynamics
of real gases by variation of coefficients. This
method permits one to operate directly on experi-
mental data for p-V-T without resorting to the equa-
tion of state. Recently Edmister and McGarry
("Chem Engr Progr," 45, 421, 1949) repeated

USSR/Physics - Thermodynamics
(Contd)

158187

Jan 50

Rozen's equations without citing his works, although
they had been published in "Chemical Abstracts."
Submitted 1 Dec 49 by Acad L. D. Landau.

158187

CA
Oxygen exchange between oxide catalysts and water vapor. S. M. Karpacheva and A. M. Rosen. *Doklady Akad. Nauk S.S.S.R.* 75, 55-8(1950); *Ch. C.A.* 44, 917e.— Rates of exchange of O^{18} between metal oxides MO and H_2O vapor were detd. both in the forward direction, $MO^{18} + H_2O^{16} \rightarrow MO^{16} + H_2O^{18}$, and in the reverse direction by measurements of the O^{18} content in the initial and the reacted H_2O (by the excess d.). On a Cr_2O_3 10% + Al_2O_3 90% contact, on active Al_2O_3 , on MnO_2 , and on granulated CuO, the exchange is characterized by a sharp slowing down with progressing satn., resulting in a quasi-equil. and practical cessation of further exchange at a considerable distance from the true equil. distribution of O^{18} between the oxide and the vapor. With rising temp., the rate of exchange increases, and the quasi-equil. comes closer to the true equil. Thus, on Al_2O_3 , the degree of exchange A (ratio of the actual excess concn. of O^{18} in γ per g. O, and of its equil. concn.) attained at 200°, 400°, and 600°, was 20, 30, and 50%, resp., and at 800°, $A = 97\%$ was reached in 80 min. MnO_2 was completely satd. with O^{18} in 70 min. at 700°. With the least active contact, CuO, $A = 45\%$ at 800°. On Cr_2O_3 + Al_2O_3 , variation of the contact time from 0.70 to 2.3 sec., and fragmentation of the pellets by a

factor of 8, did not change either the rate or the exchange of A ; consequently, diffusion is not rate-detd. The cessation of the exchange at a considerable distance from the equil. is explained by the kinetic heterogeneity of the contact surface, with only part of the O atoms of the oxide capable of exchange. In the back exchange, all the excess O^{18} introduced was given up, i.e. the back exchange proceeds to completion. However, only the O^{18} introduced at the same, or at a lower temp., was given up in the back exchange; thus, O^{18} introduced into the oxide at 400° was not completely given up at 200°, but only at 400°. Activation energies E calcd. from the reciprocal times necessary to attain a stated A , were: active Al_2O_3 , $A = 5, 20, 30\%$, $E = 1.75, 5.1, 7.5$ kcal./mole; ignited Al_2O_3 , $A = 2, 45\%$, $E = 2.9, 4.8$; Cr_2O_3 + Al_2O_3 , $A = 4, 10\%$, $E = 2.3, 9.0$ kcal./mole. The increase of E with A is very nearly linear, as in activated adsorption on uniformly heterogeneous surfaces. The same kinetic equation, $dA/dr = ce^{-AA}$, where r = length of time of treatment, applies to both activated adsorption and to O^{18} exchange. This is demonstrated by the linearity of A as a function of $\ln r$, in forward and in back exchange on active Al_2O_3 and on CuO. The analogy between the isotopic exchange and activated adsorption is plausible on account of the large sp. surface area of the oxides (100-300 sq. m./g.); one cc. of the oxide can be represented by a film about 10^{-4} mm. thin, and diffusion across such a film would require only 10^{-3} sec., as compared with the duration of the expts. of ~100 min. On the other hand, activated adsorption involves also some amt. of bulk sorption. N. Thon

CA

2

Exchange between some oxides and liquid water, alcohol, and gaseous oxygen. S. M. Karpacheva and A. M. Rogin. *Doklady Akad. Nauk S.S.S.R.* 75, 230-42 (1960); cf. C.A. 45, 1855b. — Effective forward ($MO^m + H_2O^m \rightarrow MO^m + H_2O^m$) and back exchange ($MO^m + H_2O^m \rightarrow MO^m + H_2O^m$) between liquid H_2O and metal oxides MO , at room temp., were observed with a $Cr_2O_3 \cdot Al_2O_3$ catalyst, active Al_2O_3 (a dehydration catalyst), active ZnO (also a dehydration catalyst), and SiO_2 gel; the rates of exchange are lower than with H_2O vapor at higher temps. In the presence of liquid H_2O , the oxides evidently form hydrates, and the exchange possibly proceeds over formation and decomn. of

hydrates. Similar exchange was also observed between the tagged oxides and liquid $EtOH$ or $AcOH$; this is taken to indicate solvate formation with these oxides even at room temp. Back exchange between a tagged oxide and gaseous O_2 was observed, with MnO_2 at as low as $70-80^\circ$, $CaCO_3$ at 350° , V_2O_5 at 450° , and with natural dunite at 800° . The result with MnO_2 is in conflict with Morita (C.A. 34, 2237) who found beginning exchange only at 300° . On CuO , exchange is unmistakable at 800° , again in conflict with M.'s conclusion of absence of an exchange. Kinetically, the amt. exchanged, with either H_2O vapor or gaseous O_2 , is proportional to the log of time; at the same stage, exchange with O_2 is lower than with H_2O vapor. In a flow system, the exchange is detectable only with sufficiently long contact times τ ; thus, between CuO and H_2O vapor or O_2 , the min. τ required is 3.5 and 7.6 sec., resp. It is possible that over very long times, O^m exchange between an oxide and air would be detectable even at room temp.; the well-known difference of the O^m content of natural water and air might be due to such an exchange between $CaCO_3$ and air. The question whether traces of H_2O in the oxide are necessary for the O^m exchange between it and O_2 (or air) is still open. Failure by Valnshteln and Turovskii (C.A. 44, 712k) to detect exchange at 350° on MnO_2 dried at 550° may be due to either the drying or else to partial dissocn. to Mn_2O_3 which could be tantamount to loss of just the mobile and easily exchangeable O . If the catalytic activity of an oxide is characterized by the lowest temp. at which it is able to catalyze an oxidation, the order of activities of MnO_2 (room temp.), V_2O_5 ($350-450^\circ$), and CuO ($800-810^\circ$), coincides with the order of ease of exchange of O^m with O_2 . The catalytic activity of an oxide for oxidation is, consequently, linked with the mobility of its O . N. Thor

1951

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CA

Oxygen exchange between alcohol vapor and dehydration catalysts. N. M. Karjacheva and A. M. Rogen. *Doklady Akad. Nauk S.S.S.R.* 21, 426 (1981). EtOH vapor was fed at 200 and at 400° over active Al_2O_3 tagged with 150-300 % of heavy O^{18} by way of exchange with H_2O vapor contg. O^{18} . Dehydration of the EtOH takes place at 400°, not at 200°. At both temps., there is exchange of O between the solid and the EtOH vapor, at a rate governed by the exponential law $dq/dt \sim e^{-qt}$, where q = amt. of O^{18} exchanged. The exchange of Al_2O_3 with H_2O is 2-3 times as fast as with EtOH vapor. The similarity of the kinetic curves of the exchange with H_2O and with EtOH suggest an identical mechanism, namely primary formation of, resp., hydrates or alcoholates (or ethers) between Al_2O_3 and, resp., H_2O or EtOH. The curves at 200 and at 400° are of identical shape, despite the absence of dehydration at the lower, and its presence at the higher, temp. This is taken to mean that at both temps. the primary step is the formation of a compd., probably $Al(OEt)$, between the EtOH and the Al_2O_3 . The isotopic exchange takes place in this primary step. Exchange of O^{18} between the EtOH and the catalyst was observed also, at 300°, on kaolin, $Al_2O_3 + Cr_2O_3$ (10%), and ZnO; the reaction on the first two catalysts was dehydration, and on ZnO, dehydrogenation.

N. Thun

BTR

26

4647* Thermodynamics Prerequisites of Three-Component Distillation. (In Russian.) A. M. Rozen, *Doklady Akademii Nauk SSSR*, new ser., v. 81, Dec. 11, 1951, p. 863-866. Presents mathematical analysis and results of its application to several organic liquid mixtures. Data are tabulated and charted.

ROZEN, A.M.

USSR/Physics - Heat Exchange, Convection Jun 52

"Application of Law of Corresponding States to Convective Heat Exchange Under Pressure," A. M. Rozen, Inst of Phys Problems, Acad Sci USSR

"Zhur Tekh Fiz" Vol XXII, No 6, pp 1016-1021

Studies heat exchange under various pressures and plots results in graphs. Derived corresponding formulas using previous works (cf. A. Colburn, M. Drew, Ind Eng Chem, 39, 958, 1947; and others). Relation of crit thermal loads to physicochem consts of the liquid during boiling was 1st established by S. K. Kutateladze "Iz Ak Nauk SSSR Otdel Tekh Nauk" No 4, 529, 1951. Received 11 Sep 50.

219T90

ROZEN, H. M.

20067

SSR

✓ Several relations for the diffusion of gases in a solid.
A. M. Rozen and Ya. Shevelev, *Doklady Akad. Nauk*
SSSR 27, 817-20 (1959). Three cases of diffusion in
solids are considered: (a) diffusion in the depth of a solid,
(b) reverse diffusion (desorption) out of a solid, which is
partially satd. due to case a, (c) the effect of relaxation, i.e.
keeping the solid at the exptl. temp., upon the rate of dif-
fusion. The existing solns. for case a are simplified and
lead to a simplified equation. The remaining 2 cases are
discussed in general terms but no definite soln. is given.
The data for O (cf. Shumovskaya, *et al.*, *C.A.* 47, 7930;
Karpacheva and Rozen, *C.A.* 45, 3238) are interpreted on
the basis of the equations that are developed. J. R. J.

ROZEN, A. M.

PA 240T10

USSR/Chemistry - Adsorption

. Dec 52

"Some Rules of the Sorption of Gases by Polydisperse Catalysts When There Is Combination of Adsorption and Solution," A. M. Rozen and Ya. V. Shevelev

"DAN SSSR" Vol 87, No 6, pp 1017-1020

The authors show in a mathematical way that similar results can be obtained by assuming either a polydisperse state of the catalysts or a combination of adsorption and soln. Presented by Acad A. N. Frumkin
20 Oct 52.

240T10

ROZEN, A.M.

①

The calculation of thermodynamic quantities from experimental P - V - T data. A. M. Rozen, *Zhur. Fis. Khim.* 27, 178-93(1953).—A critical analysis and evaluation of methods used. The fitness of P - V - T data for the calcn. of C_p (or C_v) is expressed by the ratio $K = \delta/\Delta$, and the calcn. is possible if $K \ll 1$. δ = uncertainty in measurement of volume (or pressure); Δ = curvature of the isobar (or isochore). The method of Deming and Shupe (*C.A.* 25, 3885; 26, 2002, 4512) applied for calcn. of C_p for H_2 , N_2 , and CO is discussed. The method is not suited for high pressures, does not permit the test of the fitness of the data, and masks the arbitrariness in smoothing out the data. A method based on calcn. of the deviation from the best linear approximation (e.g. $PV = A + BP + CT$) is proposed. The smoothing of the derivs. is improved and the accuracy of the calcn. of entropy and enthalpy is increased. It is shown that at high pressures and temps. $2 < T/T_{crit} < 6$, the accuracy of P - V - T data for calcn. of C_p should be at least 0.01-0.05%.

L. Luft-Zurkowski

[Handwritten signature]
2/16/54

Rozen, A.

62 ✓ The role of diffusion in oxide lattices in reactions with oxidation-reduction mechanism and oxygen exchange. A. Rozen and S. Karpacheva: *Doklady Akad. Nauk S.S.S.R.* 60, 607-10 (1953).—The transfer of O^{2-} by an oxidation-reduction mechanism from catalysts was limited by diffusion in oxide lattices. The effect was illustrated by periodically detg. the rate of exchange of H_2O vapor with Fe oxides at 400° in presence of H and allowing the catalyst to rest between each of the detns. in the presence of N or H. A sharp rise in rate of exchange was noted after every rest period. Similar results were obtained with H_2O vapor and Al_2O_3 catalyst. V. N. Bednarski

(1)

ROZEN, A.M.

62 ✓ The movement of oxygen of several solid bodies and the "geologic thermometer" of Yuri-Nir. S. M. Karpachera and A. M. Rozen. *Doklady Akad. Nauk S.S.S.R.* 88, 700-10 (1953). The Yuri-Nir thermometer is based on the principle that the equil. const. of the exchange reaction of O between carbonates and water depends on the temp. Therefore, the content of O^{18} in limestone must depend on the temp. of the oceans where these limestones form. From the content of O^{18} in limestones of various geol. ages, the temp. of the oceans of those days could be detd. Expts. were conducted showing this assumption to be erroneous. $CaCO_3$ was prepd. in a highly dispersed state ($(NH_4)_2CO_3 + CaCl_2$), made into tablets, and dried at 400° . Three 20-g. wts. of tablets were placed in cans, 10 ml. of H_2O contg. 356 g. H_2O^{18} was added, and the cans were sealed with paraffin. After 10, 20, and 40 days at room temp., the water was removed by suction *in vacuo* and analyzed. It was found that the concn. of H_2O^{18} in the water has decreased by 13, 23, and 45 g. in the 10, 20, and 40 days. This proves the occurrence of O exchange between carbonates of Ca and H_2O at room temp. Thus, it is not possible to det. the temp. of $CaCO_3$ by the isotopic compn. of the O in it.

J. S. Joffe

Rozen, A. M.

USSR/ Chemistry - Physical chemistry

Card 1/1 : Pub. 22 - 35/47

Authors : Rozen, A. M.

Title : About the behavior of gases in the above-critical zone

Periodical : Dok. AN SSSR 99/1, 133-136, Nov 1, 1954

Abstract : A critical review of the work of various authors following the classical theory of critical phenomena in the behavior of gases (water vapors) in the above-critical zone is presented. The errors in some of the works are listed. The use of newly introduced mathematical formulas, for the determination of gas behavior in above-critical zones, is recommended. Eleven references: 10-USSR and 1-Canadian (1938-1953). Graphs.

Institution : ...

Presented by: Academician A. N. Frumkin, May 26, 1954

3

✓ Sorption of gases by polydisperse occluders. A. M. Rozen and Ya. V. Shevelev. *Zhur. Fiz. Khim.* 29, 1353-1354 (1955); cf. *C.A.* 49, 15413e. The diffusion of a gas toward the grains of a polydisperse powder is calcd. For a definite type of polydispersity, the adsorbed amt. $A = k^m$ (k = time; m = a const.), in accord with the rate of adsorption on allegedly nonuniform surfaces. Surface processes and vol. processes (such as soln.) affect the over-all rate of occlusion. J. J. Bikerman

① MB
MST

KARPACHEVA, S. M., ROZEN, A. M.

"Method of Total Isotopic Analysis of Water."

Published in: *Journal of Analytical Chemistry*, Vol. 25, No. 1, 1970, Moscow, 1970, pp. 1-4.

Abstract: The method of total isotopic analysis of water is described. The method is based on the use of a gas-liquid chromatograph with a mass spectrometer.

ROZEN, A. M., KARPACHEVA, S. M., SHAVELEV, Ya. V.

"Oxygen Mobility in Oxides and the Kinetics of Oxygen Exchange."

ROZEN, A.M.

Unsteady transfer of mass in rectification columns. Dokl. AN SSSR 107
no. 2: 295-298 Mr '56. (MLRA 9:7)

1. Predstavlene akademikem A.N. Frumkinym.
(Mass transfer) (Distillation apparatus)